Satin, K.P., G.C. Windham, J. Stratton and R.R. Neutra (1987). Del Amo-Montrose health effects study, California Department of Health Services.

SUMMARY

In 1984 an epidemiological investigation was carried out in the communities in the general vicinity of the Del Amo and Montrose hazardous waste sites by the Epidemiological Studies and Surveillance Section in Los Angeles. Because of the proximity
of the two waste sites, the health status of the potentially chemically exposed communities was studied concurrently although, because the wastes at each site differed, the autonomy of each community was maintained in the analysis.

The Del Amo site is a six acre area that contains wastes from the manufacture of synthetic rubber and ethylene. Operations on the site began in the 1940s and ended in 1973. The 13 acre Montrose site housed a facility which produced DDT from 1947 through the 1970s. At the time of this study however, offsite chemical migration patterns and concentrations were not available for either site. Thus, the study sought to evaluate various health outcomes to potential exposures generally suing the communities' proximity to the sites as an indirect measure of exposure.

The basis for this study was concern voiced by local residents that they were experiencing certain health problems which resulted from chemicals in the hazardous waste sites. Thus, the objective of this study was to evaluate a broad spectrum of health effects, including those specifically raised by community residents, by comparing them to types and rates of effects seen in a similar community not affected by either the Del Amo or Montrose sites. Statistical procedures were used to make adjustment for differences between the communities so that the comparison of health effects would be valid.

Approximately 1000 adults in each of the Del Amo and Montrose communities participated in the study which corresponded to 65 and 71 percent of the targeted individuals, respectively. Information on about 500 children in each area was also obtained. The results of the study show that the participants from the Del Amo or the Montrose study areas have not reported experiencing elevated rates or unusual patterns of cancer, adverse reproductive outcomes, or mortality. However, compared to the control area, the rates of several symptoms were elevated in the Del Amo and Montrose study areas. Some of the elevations were explained by factors other than living near either of the hazardous waste sites while others, including those for the symptoms skin irritation/rash and irritation of the eyes, upper respiratory tract, and throat, showed persistent relationships with living near the Del Amo or Montrose sites. The elevations were more pronounced in the Del Amo area study group than among the Montrose participants. Indeed, with respect to the results for the Montrose area, the small increases found were likely to be due to chance.

The findings of this study indicate, for example, that in the Del Amo community of about 1000 adults, there are 20-60 more people reporting having these irritative symptoms than we would have expected.

Two points should be kept in mind when interpreting the study's results. First, the findings

pertain to the then current residents of the study communities; the health status of people who have moved away and the long term effects, if any, from living near the sites were not issues this study was designed to address. Second, the elevated symptom rates are not necessarily caused by either waste site. The presence of other sources of chemical contamination in the area, e.g., upwind petroleum refineries and a chemical manufacturing plant; the suggestion that some over-reporting of symptoms may have occurred; the potential bias from low response rates; and the absence of good offsite chemical exposure levels preclude definitively establishing either the Del Amo or Montrose sites as the source of the health problems reported.